PERMIT APPLICATION REVIEW
TEMPORARY COVERED SOURCE PERMIT NO. 0696-01-CT
Application for Renewal No. 0696-05
Application for Significant Modification No. 0696-06

Company: Delta Construction Corporation

Mailing Address: 91-255 Oihana Street
Kapolei, Hawaii 96707

Facility: Crushing and Screening Plants

Location: Various Temporary Sites, State of Hawaii

Initial Location: 91-255 Oihana Street, Kapolei, Oahu

SIC Code: 1429 (Crushed and Broken Stone, Not Elsewhere Classified)

Responsible Official: Mr. Kenneth J. Kobatake
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PROPOSED PROJECT

Delta Construction Corporation has submitted permit applications for renewal and significant modification. Delta Construction Corporation is proposing to install and operate a 700 TPH mobile jaw crusher and a 660 TPH mobile cone crusher.

The existing permitted diesel engines will be removed from the permit since they propel the crushers and screens and are exempt pursuant to HAR §11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

There are no other proposed changes to existing equipment in the design or operation of the facility.

EQUIPMENT DESCRIPTION

Facility Equipment				
Equipment	Manufacturer	Model No.	Serial No.	Manuf. Date
455 TPH Cone Crushing Plant with integrated 4'x10' screen	Extec	X44SBS	11606	Jan. 2008
460 TPH Jaw Crushing Plant	Komatsu	BR500JG-1	1212	2000
400 TPH Screening Plant	Extec	Turbo Trac	7300	2000
353 TPH Jaw Crushing Plant	McCloskey	C50	80139	Jan. 2011
359 TPH Screening Plant	McCloskey	S190	SA9000S1908-MO66345	9/16/2008
700 TPH Jaw Crushing Plant	Cortec	J-56	Q258115	
660 TPH Cone Crushing Plant	Cortec	C-400	Q286815	
Water Spray Systems				
Various Conveyors				

AIR POLLUTION CONTROLS

The crushing and screening plants are equipped with water spray systems to control fugitive dust. Water trucks/water sprays will be used as necessary to minimize fugitive dust from plant operations, material transfer points, stockpiles, and plant roads.

APPLICABLE REQUIREMENTS

Hawaii Administrative Rules (HAR)
Title 11 Chapter 59, Ambient Air Quality Standards
Title 11 Chapter 60.1, Air Pollution Control
- Subchapter 1, General Requirements
- Subchapter 2, General Prohibitions
  - 11-60.1-31, Applicability
  - 11-60.1-32, Visible Emissions
  - 11-60.1-33, Fugitive Dust
- Subchapter 5, Covered Sources
- Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
  - 11-60.1-111, Definitions
  - 11-60.1-112, General Fee Provisions for Covered sources
  - 11-60.1-113, Application Fees for Covered sources
  - 11-60.1-114, Annual Fees for Covered sources
  - 11-60.1-115, Basis of Annual Fees for Covered Sources
- Subchapter 8, Standards of Performance for Stationary Sources
  - 11-60.1-161, New Source Performance Standards
- Subchapter 10, Field Citations

Standard of Performance for New Stationary Sources (NSPS), 40 Code of Federal Regulations (CFR) Part 60
Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the crushing and screening plants because the maximum capacities of the plants are greater than 150 tons/hour, and the plants were manufactured after August 31, 1983. Equipment that commences construction, modification, or reconstruction on or after April 22, 2008, have more stringent fugitive emission opacity limits.

Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to the diesel engines because the engines are considered nonroad engines as defined in 40 CFR §1068.30. Subpart IIII applies to stationary internal combustion engines that are not nonroad engines.

National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61
This source is not subject to NESHAPs because there are no standards in 40 CFR Part 61 applicable to this facility.

NESHAPs for Source Categories (Maximum Achievable Control Technology (MACT)), 40 CFR Part 63
Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) is not applicable to the diesel engines because the engines are considered nonroad engines as defined in 40 CFR §1068.30. Subpart ZZZZ applies to stationary internal combustion engines that are not nonroad engines.

Prevention of Significant Deterioration (PSD), 40 CFR Part 52, §52.21
This source is not subject to PSD requirements because it is not a major stationary source as defined in 40 CFR §52.21 and HAR, Title 11, Chapter 60.1, Subchapter 7.

Compliance Assurance Monitoring (CAM), 40 CFR 64
This source is not subject to CAM because the facility is not a major source. The purpose of CAM is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 CFR Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM.

Air Emissions Reporting Requirements (AERR), 40 CFR Part 51, Subpart A
AERR is not applicable because potential emissions from the facility do not exceed AERR thresholds.

DOH In-house Annual Emissions Reporting
The Clean Air Branch requests annual emissions reporting from those facilities that have facility wide emissions exceeding in-house reporting levels and for all covered sources. Annual emissions reporting will be required because this facility is a covered source.

Best Available Control Technology (BACT)
This source is not subject to BACT analysis because potential emissions are below significant levels. BACT analysis is required for new sources or modifications to sources that have the potential to emit or increase emissions above significant levels considering any limitations as defined in HAR, §11-60.1-1.

Synthetic Minor Source
A synthetic minor source is a facility that is potentially major, as defined in HAR, §11-60.1-1, but is made non-major through federally enforceable permit conditions. This facility is not a synthetic minor source because potential emissions do not exceed major source thresholds when the facility is operated without limitations for 8,760 hours/year.

INSIGNIFICANT ACTIVITIES / EXEMPTIONS

The diesel engines powering the crushers and screens are exempt in accordance with HAR §11-60.1-82(d)(4) because the engines are used to propel the crushers and screens.

ALTERNATIVE OPERATING SCENARIOS

The applicant did not propose any alternate operating scenarios.

PROJECT EMISSIONS

Crushing and Screening Plants

The maximum capacities of the crushers and screens were used to calculate emissions. Water sprays will be used to control PM emissions. Emissions were based on emission factors from AP-42 Section 11.19.2 (8/04) – Crushed Stone Processing and Pulverized Mineral Processing.

700 TPH Jaw and 660 TPH Cone Crushers	
Pollutant	Emissions (TPY) [8,760 hr/yr]
PM	9.4
PM-10	3.9
PM-2.5	0.8

Existing Crushing and Screening Plants	
Pollutant	Emissions (TPY) [8,760 hr/yr]
PM	11.8
PM-10	4.4
PM-2.5	0.6

Wind Erosion from Storage Piles

Emissions were based on emission factors from AP-42 Section 8.19.1 (4th ed.) - Sand and Gravel Processing

Wind Erosion from Storage Piles	
Pollutant	Emissions (TPY) [8,760 hr/yr]
PM	0.6
PM-10	0.3
PM-2.5	0.1

Vehicle Travel on Unpaved Roads

The maximum capacities of the crushers and screens were used to calculate emissions. A 70% control efficiency was assumed for water suppression to control fugitive dust. Emissions were based on emission factors from AP-42 Section 13.2.2 (11/06) – Unpaved Roads.

Vehicle Travel on Unpaved Roads	
Pollutant	Emissions (TPY) [8,760 hr/yr]
PM	7.3
PM-10	1.8
PM-2.5	0.2

Greenhouse Gas (GHG) Emissions

There are no GHG emissions because emissions from the crushing and screening plants are fugitive in nature.

Total Emissions

Total facility emissions are summarized in the table below.

Total Facility Emissions and Trigger Levels (TPY)					
Pollutant	Emissions (No Limits)	BACT Significant Levels	AERR Thresholds	DOH Levels	Wind Erosion and Vehicle Travel Emissions
CO	0	100	1000	250	0
NO_X	0	40	100	25	0
SO_2	0	40	100	25	0
PM	21.2	25	-	25	8.0
PM-10	8.3	15	100	25	2.0
PM-2.5	1.4	10	100	-	0.2
VOC	0	40	100	25	0
HAPs	0	-	-	5	0

AIR QUALITY ASSESSMENT

An ambient air quality impact analysis (AAQIA) is not required for the proposed crushing plants because emissions are fugitive in nature. The Department of Health air modeling guidance generally does not require an ambient air quality impact analysis for fugitive emissions.

SIGNIFICANT PERMIT CONDITIONS

1. Incorporate provisions of 40 CFR 60, Subpart OOO for the crushing and screening plants, including fugitive emission limits and source performance tests.

Reason: 40 CFR 60, Subpart OOO, requirements.

CONCLUSION

Delta Construction Corporation has submitted permit applications for renewal and significant modification to install and operate a 700 TPH mobile jaw crusher and a 660 TPH mobile cone crusher. Water sprays will be used to control fugitive emissions. Potential emissions were based on the maximum rated capacities of the equipment. Recommend issuance of the covered source permit subject to the incorporation of the significant permit conditions, thirty day (30-day) public comment period, and forty-five day (45-day) Environmental Protection Agency review period.

Mark Saewong
December 23, 2014